Elster Metering Ltd & Anor v Damini Corp Sdn Bhd & Anor

HIGH COURT (KUALA LUMPUR) — SUIT NO D5(IP)-22–1279 OF 2006
AZAHAR MOHAMED J
23 APRIL 2010

Trademark — Copyright — Infringement — Engineering drawings — Infringement of plaintiffs' drawings — Allegation of — Whether a substantial reproduction from plaintiffs' drawings — Sufficient objective similarity — Whether defendants copied plaintiffs' design by reverse engineering — Whether defendants' design independently developed

Trademark — Copyright — Ownership — Artistic works — Engineering drawings — Water meter — Infringement of plaintiffs' drawings — Allegation of — Second plaintiff an exclusive licensee of copyright — First plaintiff claiming ownership of copyright through assignment from predecessors — Statutory declaration — Admissibility of — Prima facie ownership of first plaintiff — Whether defendants rebutted first plaintiff's prima facie ownership — Copyright Act 1987 s 42

Words and Phrases — Engineering drawings — Artistic works — Graphic work — Whether includes any drawing

The plaintiffs' cause of action against the defendants is for the infringement of copyright subsisting in the drawings for a type of water meter, a device used to quantify the volume of water usage at each residential and commercial building in a public water supply system. The plaintiffs' alleged that one Ningbo Water Meter Co Ltd ('Ningbo') had, without the license or authority of the plaintiffs, manufactured, possessed for the purpose of trade or business, offered for sale, sold or otherwise dealt in and/or with water meters under model reference LXH-15B ('Ningbo water meters') and/or parts thereof that reproduce in material form the drawings and the plaintiffs' water meters. The second plaintiff claimed that they are the exclusive licensee of the copyright in the drawings and the plaintiffs' water meters in Malaysia and three other countries. The first plaintiff's claim to copyright subsisting in the drawings was based on the following grounds. The drawings are original artistic works made by employees of the first plaintiff or the first plaintiff's predecessor in the course of their employment whilst resident in the United Kingdom. By an assignment in writing, the first plaintiff acquired the copyright in all the drawings relating to, inter alia, the plaintiffs' water meters owned by the first plaintiff's predecessor.

The defendants however, disputed the subsistence of any copyright in the drawings. The defendants denied that Ningbo had infringed the copyright in the said drawings. The defendants stated that Ningbo water meters were the result of extensive research and development by Ningbo. The issues considered, inter alia, were as follows: (a) whether the first plaintiff was the owner of the copyright subsisting in the original drawings of the plaintiffs' water meters; (b) whether the defendants have adduced positive evidence to rebut to displace the first plaintiff's prima facie ownership; and (c) whether the Ningbo water meters amounted to a substantial reproduction of the plaintiffs' drawings.

Held, dismissing plaintiffs' claim with costs:

(1) The first plaintiff had successfully established that copyright subsists in the drawings in Malaysia and it is the owner thereof by virtue of s 42 of the Act. Besides P53, the first plaintiff had shown further supportive evidence of ownership. PW1 had gone over and above the five preconditions in s 42 to show exactly how and why the first plaintiff was the owner of the copyright subsisting in the drawings. PW1 had been with the first plaintiff and its predecessors for 18 years. PW1, therefore had personal knowledge of the makers of the drawings and the modifications therein. Therefore, there could be no doubt that the drawings enjoyed copyright protection in Malaysia even though they were made in the United Kingdom (see paras 31–32).

(2) The defendants had proved on the balance of probability that Ningbo water meter was independently developed. It is not disputed that Ningbo is a well-established water meter manufacturer in its own right of 80 years standing. The evidence of DW2 clearly established that the Ningbo water meter was the result of Ningbo's own development efforts and thus, was not copying the plaintiffs' water meter. Hence, for this very reason there can be no infringement of the plaintiffs' copyright by Ningbo (see paras 58–59 & 63).

[Bahasa Malaysia summary

Kausa tindakan plaintif terhadap defendan adalah untuk pelanggaran hakcipta dalam lukisan-lukisan sejenis meter air, satu peralatan yang digunakan untuk mengira jumlah air yang digunakan di setiap bangunan perumahan dan komersial dalam sistem bekalan air awam. Plaintif-plaintif mendakwa bahawa Ningbo Water Meter Co Ltd ('Ningbo'), tanpa lesen atau kebenaran plaintif-plaintif, telah mengeluarkan, memiliki bagi tujuan perdagangan atau perniagaan, menawarkan untuk jualan, telah menjual atau telah berurusan dalam dan/atau dengan meter air model rujukan LXH-15B ('Ningbo water meters') dan/atau sebahagian daripadanya yang mengeluarkan semula dalam bentuk material daripada lukisan-lukisan tersebut dan meter air plaintif-plaintif. Plaintif kedua mendakwa bahawa mereka penerima lesen eksklusif hakcipta lukisan-lukisan dan meter air plaintif-plaintif di Malaysia

dan tiga negara lain. Tuntutan plaintif pertama ke atas hakcipta adalah dalam lukisan-lukisan tersebut berdasarkan alasan-alasan berikut. Lukisan-lukisan tersebut adalah kerja kesenian yang asli oleh pekerja-pekerja plaintif pertama atau plaintif pertama yang terdahulu dalam haluan pekerjaan mereka semasa di United Kingdom. Menerusi penyerahan hak secara bertulis, plaintif pertama mendapatkan hakcipta dalam kesemua lukisan berkaitan, antara lain, meter air plaintif-plaintif dimiliki plaintif pertama yang terdahulu. Defendan, walau bagaimanapun, mempertikaikan sebarang hakcipta dalam lukisan-lukisan tersebut. Defendan-defendan menafikan bahawa Ningbo telah melanggar hakcipta lukisan-lukisan tersebut. Defendan-defendan menyatakan bahawa meter air Ningbo adalah hasil daripada kajian dan pembangunan yang mendalam oleh Ningbo. Isu-isu yang dipertimbangkan, antara lain, adalah seperti berikut: (a) sama ada plaintif pertama merupakan pemilik hakcipta lukisan-lukisan asli meter air plaintif-plaintif; (b) sama ada defendan-defendan telah mengemukakan keterangan positif untuk mematahkan pemilikan prima facie plaintif pertama; dan (c) sama ada meter air Ningbo merupakan pengeluaran semula secara sunstansial lukisan-lukisan plaintif.

Diputuskan, menolak tuntutan plaintif-plaintif dengan kos:

(1) Plaintif pertama telah berjaya membuktikan bahawa hakcipta wujud dalam lukisan-lukisan tersebut di Malaysia dan ia adalah pemiliknya menurut s 42 Akta Hakcipta 1987 ('Akta'). Selain daripada P53, plaintif pertama telah menunjukkan keterangan sokongan selanjutnya berkenaan pemilikan. PW1 telah memenuhi dengan amat memuaskan lima syarat dalam s 42 untuk menunjukkan bagaimana dan mengapa plaintif pertama merupakan pemilik hakcipta dalam lukisan-lukisan tersebut. PW1 bekerja bersama plaintif pertama dan majikan yang terdahulu selama 18 tahun. Oleh itu, PW1 mempunyai pengetahuan persendirian tentang pelukis-pelukis lukisan-lukisan tersebut dan pengubahsuaiannya. Maka, tidak ragu lagi bahawa lukisan-lukisan tersebut dilindungi hakcipta di Malaysia walaupun dibuat di United Kingdom (lihat perenggan 31–32).

(2) Defendan-defendan telah membuktikan atas imbangan kebarangkalian bahawa meter air Ningbo dimajukan secara bebas. Tidak dipertikaikan bahawa Ningbo adalah pengeluar meter air yang ternama selama 80 tahun. Keterangan DW2 jelas menunjukkan bahawa meter air Ningbo adalah hasil daripada kerja-kerja pembangunan Ningbo sendiri dan oleh itu, tidak meniru meter air plaintif-pliantif. Oleh itu, atas alasan ini, tiada pelanggaran hakcipta plaintif oleh Ningbo (lihat perenggan 58–59 & 63).]

Notes

For cases on infringement of copyright in general, see 3(2) *Mallal's Digest* (4th Ed, 2010 Reissue) paras 5867–5715.

For cases on ownership of copyright in general, see 3(2) *Mallal's Digest* (4th Ed, 2010 Reissue) paras 5731–5732.

Cases referred to

Chong Kak Hau v PP [2009] 8 CLJ 10, HC (refd)
Elster Metering Limited & George Kent (M) Bhd v Damini Corp Sdn Bhd & Delta Perdana Sdn Bhd (Suit No D5 (IP)-22–1279 of 2006), HC (distd)
Elster Metering Ltd & Anor v Premier Amalgamated Sdn Bhd [2010] 2 CLJ 149, HC (refd)
Francis Day & Hunter Ltd v Bron & Anor [1963] Ch 587, HL (refd)
Goodyear Tire & Rubber Company & Anor v Silverstone Tire & Rubber Co Sdn Bhd [1994] 1 MLJ 348; [1994] 1 CLJ 509, HC (refd)
Kiwi Brands (M) Sdn Bhd v Multiview Enterprises Sdn Bhd [1998] 6 MLJ 38, HC (refd)
Megnaway Enterprise Sdn Bhd v Soon Lian Hock (sole proprietor of the firm Performance Audio & Car Accessories Enterprise) [2009] 3 MLJ 525, HC (refd)
Microsoft Corporation v Yong Wai Hong [2008] 3 MLJ 309; [2008] 6 CLJ 223, CA (refd)
Peko Wallsend Operations Ltd & Ors v Linatex Process Rubber Bhd and another action [1993] 1 MLJ 225, HC (refd)
Rajagopal a/l Santhanam v PP [1998] 1 LNS 485, HC (refd)
Rock Records (M) Sdn Bhd v Audio One Entertainment Sdn Bhd [2005] 3 MLJ 552; [2005] 1 CLJ 200, HC (refd)

Legislation referred to

Copyright Act 1987 s 7, 7(2A), 42, 42(1) (2)
Copyright (Amendment) Act 1996 ss 12, 13, 13A, 13B, 13C, 36, 42, 42(1)
Copyright (Application to Other Countries) Regulations 1990 regs 2, 3

Timothy Siaw (Teng Wei Ren with him) (Shearn Delamore & Co) for the plaintiffs.
Lua Ai Siew (Soo Thien Ming) for the defendants.

Azahar Mohamed J:

[1] The plaintiffs' cause of action against the defendants is for the infringement of copyright subsisting in the drawings for a type of water meter.

[2] A water meter is a device used to quantify the volume of water usage at each residential and commercial building in a public water supply system.

[3] Elster Metering Ltd ('the first plaintiff') claims to own copyright in six original drawings ('the drawings') set out in the following schedule A of the

statement of claim for a type of water meter known as Kent PSM water meter, and its predecessor Kent JSM water meter (collectively referred to as 'plaintiffs' water meters').

SCHEDULE A

(STATEMENT OF CLAIM)

Mod/Drawing No.	Principal Issues No.	Title	Maker	Date
General Arrangement MEB 4930/4931	1	General Assembly (PSM)	Ken Tibbs	4.3.1969
Counter Case 7/MKH 822	1	8 Figure Counter Case	Dave Saunders	25.7.1990
Chamber Assembly 4/MEB7333	1	Working Chamber Assembly	MTR	8.9.1969
Top Plate 9/MEB2315	1	1/2"PSMTop Plate Moulding (75 RPG)	Peter Sharp	7.5.1963
Piston 10/MEB428	1	Piston - %: PSM	Doug Randell	24.1.1977
Working Chamber MEB2305	1	1/2"PSM Working Chamber Moulding	Peter Sharp	3.5.1963

[4] For ease of reference, the drawings are referred to as follows:

(a) drawing No MEB 4930/4931 (general assembly) is referred to as 'drawing No 1';

(b) drawing No 7/MKH 822 (counter case) is referred to as 'drawing No 2'

(c) drawing No 4 MEB 7333 (chamber assembly) is referred to as 'drawing No 3';

(d) drawing No 9 MEB 2315 (top plate) is referred to as 'drawing No 4';

(e) drawing No 10 MEB 428 (piston) is referred to as 'drawing No 5"; and

(f) drawing No MEB 2305 (working chamber) is referred to as 'Drawing No 6'.

[5] According to the plaintiffs, one Ningbo Water Meter Co Ltd ('Ningbo'), had without the license or authority of the plaintiffs manufactured, possessed for the purpose of trade or business, offered for sale, sold or otherwise dealt in

and or with water meters under model reference LXH–15B ('Ningbo water meters') and or parts thereof that reproduce in material form the drawings and the plaintiffs' water meters.

[6] It is the contention of the plaintiffs that Damini Corp Sdn Bhd and Delta Perdana Sdn Bhd ('the defendants'), have without license or authority of the plaintiffs, possessed for the purpose of business, offering for sale, selling, supplying, importing, or otherwise dealing in or with the infringing Ningbo water meters and the infringing parts.

[7] George Kent (M) Bhd ('the second plaintiff') claims that they are the exclusive licensee of the copyright in the drawings and the plaintiffs' water meters in Malaysia and three other countries.

[8] The first plaintiff's claim to copyright subsisting in the drawings is based on the following grounds. The drawings are original artistic works made by employees of the first plaintiff or the first plaintiff's predecessor in the course of their employment whilst resident in the United Kingdom. By an assignment in writing dated 1 June 2000, the first plaintiff acquired the copyright in all the drawings relating to, inter alia, the plaintiffs' water meters owned by the first plaintiff's predecessor.

[9] On the other hand, the defendants dispute the subsistence of any copyright in the drawings and contend that the copyright has ceased by virtue of s 7 of the Copyright Act ('the Act'). The defendants deny that the Ningbo water meters of any part of the meters reproduce any part of the drawings or that Ningbo has infringed the copyright in the drawings. The defendants state that Ningbo water meters are the result of extensive research and development by Ningbo.

[10] The defendants further contend that they have not supplied the infringing water meters described in schedule B of the statement of claim.

FINDINGS OF THE COURT

[11] Having stated the background facts, I will examine each of the questions raised by both sides in turn.

[12] The question that comes first is whether the first plaintiff is the owner of the copyright subsisting in the original drawings of the plaintiffs' water meters.

[13] I should, in the first place, state that under the Act, artistic work means, inter alia, 'a graphic work' and 'graphic work' includes any drawing. Case laws

clearly established that design or engineering drawings are protected as artistic works (see *Peko Wallsend Operations Ltd & Ors v Linatex Process Rubber Bhd & Another Action* [1993] 1 MLJ 225 and more recently *Megnaway Enterprise Sdn Bhd v Soon Lian Hock (sole proprietor of the firm Performance Audio & Car Accessories Enterprise)* [2009] 3 MLJ 525. Further, these cases established that copyright also extends to three-dimensional products, which are manufactured based on the two-dimensional copyright design drawings. From all these, it is my judgment that the drawings of the plaintiffs' water meters are indeed qualified as 'artistic works'.

[14] My second point is that ss 13A, 13B and 13C ('the new sections') of the Act have no effect on the validity of the copyright subsisting in the relevant drawings of the plaintiffs' water meters. These new sections were inserted by the Copyright (Amendment) Act 1996 (Act A952) with effect from 1 September 1999, vide PU (B) 307/99. However, under s 12 of Act A952, the new sections have no effect on any works where copyright subsisted prior to their coming of force. As noted earlier, the relevant drawings of the plaintiff were made before 25 July 1992 and that is why the new sections do not apply to the drawings.

[15] This is perhaps the place to bear in mind that as pleaded in para 7 of the statement of claim, the plaintiffs rely on all issues and modifications of the drawings annexed as schedule A in the statement of claim, including subsequent 'mods' and 'issues'.

[16] In this regard, Mr Ian James Holmes ('PW1') who is the product manager — domestic meters of the first plaintiff, in his evidence has explained that the drawing masters of the drawings were first made on film and later digitally scanned and now exists in electronics form. When first made, they were referred to as issue one. Subsequent changes to the drawings were made on the drawings masters themselves. The issue number would then be raised to issue two, three and so forth. Information on the changes made is recorded into the pre-printed title block on the drawing masters such as the draughts person, date and modification summary. When the drawings were assigned from George Kent Ltd to Kent Meters Ltd in 1966, the copyright notice was changed for the relevant drawings to reflect the new copyright holder.

[17] As explained further by PW1, there are no separate drawings for each of the issues or modifications. There is only one master drawing for each of the six drawings. Subsequent modifications were executed and tracked on the master drawings. That is why there is no separate issue one, two and so forth of each of the drawings. According to PW1, the modifications made to the drawings are not substantial and do not alter the appearance, shape and configuration of the drawings.

[18] PW1 is not the copyright owner of the drawings. He is an agent of the first plaintiff, the copyright owner where he is given due authorisation by the first plaintiff to affirm the statutory declarations.

[19] As for the copyright ownership and subsistence of the same, the first plaintiff relies on s 42 of the Act, which prescribes the manner of proving copyright subsistence and ownership of works. In the course of the trial, the first plaintiff produced a copy of a statutory declaration affirmed by PW1 on 31 August 2009, which was marked as ID ('P1') as it was objected to by learned counsel for the defendants during the examination in chief of PW1. The statutory declaration of 31 August 2009 had been filed at court in relation to another High Court Suit No NCC (D6)–22–1282 of 2006, against one Premier Amalgamated Sdn Bhd. At that time, the first plaintiff was unable to produce the original statutory declaration of 31 August 2009, however the first plaintiff undertook to tender another statutory declaration. Subsequently, in the re-examination of PW1, the first plaintiff tendered the fresh statutory declaration of PW1 affirmed on 18 November 2009 as P53. It is to be noted that P53 is, in all respects, identical to the previous statutory declaration ID (P1). The only difference between P53 and ID(P1) is the date of affirmation by PW1. Indeed, as I have ruled earlier, P53 is an original statutory declaration, which was admitted in evidence through PW1, after he was cross-examined on ID(P1).

[20] Here I should say something s 42 of the Act. In essence, it provides that an affidavit or statutory declaration to be made by the copyright owner or persons authorised by the copyright owner and such affidavit or statutory declaration shall be admissible in any proceedings as prima facie evidence of the facts contained therein. It circumvents the requirement of having to produce supporting documentary evidence, which may be antiquated and voluminous (see *Rock Records (M) Sdn Bhd v Audio One Entertainment Sdn Bhd* [2005] 3 MLJ 552; [2005] 1 CLJ 200, *Microsoft Corporation v Yong Wai Hong* [2008] 3 MLJ 309; [2008] 6 CLJ 223). It is clear that the intention of the Legislature that s 42 is to make it convenient for copyright owners, especially foreign copyright owners such as the first plaintiff, to enforce their rights in Malaysia.

[21] Section 42 stipulates five prerequisites, which are as follows:

(a) it must be made by or on behalf of the person claiming to be the copyright owner;

(b) it must state the copyright subsists in the work at the time specified;

(c) that he or the person named therein is the owner of the copyright;

(d) a true copy of the work is annexed;

(e) The person who is authorised to act on behalf of the copyright must

produce such an authorisation in writing, (see *Chong Kak Hau v Public Prosecutor* [2009] 8 CLJ 10 and *Rajagopal a/l Santhanam v Public Prosecutor* [1998] 1 LNS 485.

[22] As mentioned earlier, in the present case, the statutory declaration, P53 tendered by the first plaintiff in court was affirmed by PW1. PW1 was authorised in writing by the first plaintiff to affirm the same.

[23] Having said that, in my view, the first plaintiff's s 42 statutory declaration, P53 is in compliance and it also satisfies with the five preconditions stipulated by s 42 for the following reasons:

(a) The declaration is made by PW1 on behalf of the first plaintiff who claims to be the owner of the copyright subsisting in the drawings.

(b) PW1 declared, 'The drawings are eligible for copyright under the Copyright Act 1987 of Malaysia, and at all material times and at the date of this Statutory Declaration, copyright subsists in Malaysia in the drawings'. Further, P53 is titled 'In the matter of section 42(1) of the Malaysian Copyright Act 1987 and in the matter of copyright ownership claim by Elster Metering Limited'.

(c) PW1 declared that 'The Drawings of the Water Meter herein, are true copies of the original artistic works made by employees of Lester Metering Limited or its predecessor or ABB Metering Holdings Limited or its predecessor, in the course of employment whilst resident in the United Kingdom'.

(d) True copies of each of the drawings are annexed to the statutory declaration.

(e) PW1 is authorised to act on behalf of the first plaintiff and he attached a true copy of the letter of authorisation by the first plaintiff to prove the authorisation.

[24] The first plaintiff has also shown that true copies of the drawings have been annexed to the statutory declaration. In addition, the first plaintiff has proved the same by way of primary evidence by producing the computer printouts of the drawings contained in the first plaintiff's electronic database.

[25] PW1 in his evidence explained why the drawings annexed in P53 are true copies of the work. The drawings annexed are copies of the master drawings made on film. The computer printouts of the drawings are primary evidence of the master drawings on film. The computer printouts of the drawings produced at trial correspond completely to the copies of the master drawings made on film. PW1 gave credible evidence of the reason for the destruction of the master drawings on film. Given this, in my view, the copies

annexed to P53 are sufficient representations and therefore 'true copies' of the drawings within the meaning of s 42 of the Act.

[26] I pause here for a moment to state that by virtue of s 42 of the Act, the first plaintiff has no burden to tender evidence of, among others:

(a) the makers of the drawings;

(b) the originality of the drawings; and

(c) how the first plaintiff came to be the owners of the copyright before the prima facie evidence of the copyright in the drawings can be established.

[27] By virtue of s 42(2) of the Act, the contents of the first plaintiff's statutory declaration, P53 with regards its copyright ownership claim shall be regarded as the first plaintiff's prima facie evidence on the ownership of the copyright in the drawings.

[28] In explaining the legal effect of s 42(1) of the Act, Gopal Sri Ram JCA (as he then was) in the Court of Appeal case of *Microsoft Corporation v Yong Wai Hong* [2008] 3 MLJ 309; [2008] 6 CLJ 223 stated as follows:

> The effect of s 42 is to provide prima facie evidence of the fact that the appellant's ownership of the copyright over several works in question. It was then for the respondent to provide positive evidence to displace the appellant's prima facie ownership, for example, by showing that some other person is the true owner of the claimed copyright.

[29] Thus, going by this principle, the question therefore arises whether the defendants in this case have adduced positive evidence to rebut to displace the first plaintiff's prima facie ownership. Having regard to the factual matrix of the present case, my conclusion is that the answer to this question is clearly in the negative.

[30] In my view, the defendants have not produced any positive evidence against the first plaintiff's prima facie ownership. In the defendant's statement of defence, they merely made no admission to the ownership of the copyright subsisting in the drawings and stated that the drawings are not eligible for protection. The cross-examination of PW1 is insufficient to challenge the prima facie evidence of the first plaintiff's ownership in the drawings.

[31] For the reasons as stated above, the first plaintiff has successfully established that copyright subsists in the drawings in Malaysia and it is the owner thereof by virtue of s 42 of the Act.

[32] Even more, I agree with the submission of learned counsel for the plaintiffs that besides P53, the first plaintiff has shown further supportive evidence of ownership. PW1 has gone over and above the five preconditions in s 42 to show exactly how and why the first plaintiff is the owner of the copyright subsisting in the drawings. PW1 has been with the first plaintiff and its predecessors for 18 years. PW1, therefore has personal knowledge of the makers of the drawings and the modifications therein.

[33] At this point, I would say that there could be no doubt that the drawings enjoy copyright protection in Malaysia even though they were made in the United Kingdom. The Copyright (Application to Other Countries) Regulations 1990 especially reg 3 provides that protection in Malaysia should be accorded to, amongst others, artistic works, provided that it was first published or made in either Malaysia or a specified country. 'Specified Countries' under reg 2 means countries which are members of the Berne Convention, with the United Kingdom and Malaysia having obtained membership respectively on 5 December 1987 and 1 October1990.

[34] Now, as far as the second plaintiff is concerned, it has been established that they are the exclusive licensee of the copyright subsisting in the drawings as shown in the following documents:

(a) The manufacturing and license agreement dated 1 August 1995 (IDP34).

(b) A letter confirming the validity of the said agreement ('P35')

(c) A stamped manufacturing and distribution agreement dated 13 November 2009 ('P55').

[35] Hence, on this basis, in my view the second plaintiff has the locus standi to institute this action against the defendants.

[36] So far, I have dealt with the issue of ownership of the drawings of the plaintiffs' water meters.

[37] I have still to deal with the critical issue whether Ningbo water meter/or parts thereof reproduce in material form the plaintiffs' drawings or a substantial part thereof. This is a crucial question into which I must look a little more closely.

[38] It is not disputed that the plaintiffs had not given any consent or license to the defendants to reproduce or distribute any article, which reproduces or substantially reproduces the plaintiffs' water meters.

[39] Now, as copyright owner, the plaintiffs are entitled to all the statutory rights conferred by ss 13 and 36 of the Act. The plaintiffs are entitled to the exclusive right to produce the plaintiffs' water meters. The said reproduction includes selling or distributing.

[40] As a general principle, an infringement occurs when a work or any substantial part thereof in any material form whatsoever has been produced or reproduced without license or consent from the copyright owner.

[41] In order to determine whether an infringement of copyright has occurred, the words of Diplock LJ in *Francis Day & Hunter Ltd v Bron & Anor* [1963] Ch 587 are useful. His Lordship held:

> it is well established that to constitute infringement of copyright in any literary, dramatic or musical work there must be present two elements: First, there must be sufficient objective similarity between the infringing work and the copyright work, or a substantial part thereof, for the former to be properly described, not necessarily as identical with, but as a reproduction or adaptation of the latter, secondly, the copyright work must be the source from which the infringing work is derived. There must be a causal connection between the copyright work and the infringing work.

[42] This is a question of fact and the burden is on the plaintiffs to prove sufficient degree of objective similarity between the two works and some causal connection. Proof of a sufficient degree of objective similarity between the two works and some causal connection give rise to an inference that the defendant have copied the plaintiffs' drawings, which is to be rebutted by the defendants. If this is done, the burden shifts to the defendant to show the work is an independent creation.

[43] Concerning objective similarities, the issue on whether the Ningbo water meters amounts to a substantial reproduction of the plaintiffs' drawings will depend on the facts of the case and determined by this court. In this context, the learned authors of *Copinger, Skone James on Copyright*, (13th Ed) at p 187 state as follows:

> With regard to truly original artistic works, the question whether the defendant has made such a use of the plaintiffs work can generally be answered merely by a comparison of the two works. Here a useful test of a copy is that which comes so near to the original or, alternatively, that which comes so near to the original as to suggest that original to the mind of every person seeing it. Whether or not there has been on infringement must be a matter of degree and, in the case of artistic work, the degree of resemblance is to be judged by the eye. But in the case of commercial designs general resemblance is not so good a test since resemblance may be due to common subject matter or stock designs and it is necessary to make a close examination of detail to see whether there has been infringement.

[44] The last sentence deserves a critical reading. This is particularly pertinent, in light of the contention of the defendants that the apparent general similarity of configuration of the plaintiffs' water meter ('P52') and the Ningbo water meter ('P51'), which may seem to give a general resemblance, where both water meters are stemmed from their common concept or idea, which is not protected by copyright law.

[45] And this brings me to the evidence of Mr Zhao Shaoman ('DW2'), the chief engineer and Head of Research and Development Department of Ningbo. He said that over the last 100 years, water meters evolved rapidly as a result of developments and improvements in technology. However, he added that in general there were not many changes to the structure and shape of the water meters. Furthermore, DW2 said in 1977, ISO 4064 set the standards including the technical characteristics for all types of water meters, including the volumetric rotary piston water meters. For this reason, according to DW2, similar types of water meters produced by different companies will have similar basic features. DW2 further explained that the basic functioning principle of the volumetric rotary piston water meters is that the quantity of water is measured by the rotation of the piston in the measurement chamber (which is caused by the water flowing through the piston), where movements or the rotation of the piston transmits through the speed reduction mechanism and thereafter, reach the counter register.

[46] Taking into account the basic functioning principle of rotary piston meter as stated above and the applicable ISO standard, the basic characteristics of the vertical rotary piston water meter are as follows according to DW2. The first is that its cylindrical shape. This is because the measurement cavity ie the piston is round, and in order to promote smooth flow of water. The second is that both ends are threaded end connections — according to ISO 4064 Standard. In addition, the third is that the axis line of the piston is in the same direction as the direction of the water flow. If the outer shape of the water meter does not appear this way, then the water meter will be the other type of water meter — the horizontal water meter, whereby the axis line of the piston is perpendicular to the direction of the water flow.

[47] To this extent, I would therefore agree with the argument of learned counsel for the defendants that the apparent similarity of configuration of the plaintiffs' water meters and the Ningbo water meter sold by the defendants stemmed from their common design concept or idea, which is not protected by copyright law (see s 7(2A) of the Act and *Kiwi Brands (M) Sdn Bhd v Multiview Enterprises Sdn Bhd* [1998] 6 MLJ 38).

[48] In my view, there appear to be similarities in the shape of the two meters because both water meters belong to the same type of water meter vertical volumetric rotary piston water meter with end connection of 15mm diameter. A

[49] Now, despite the general resemblance of the two water meters, what is, however, more important in the present context is that a detailed examination as done by DW2 reveals significant differences between the plaintiffs' water meters and Ningbo water meters, which can be summarised as follows: B

(a) The plaintiffs' water meter is purely cylindrical, while Ningbo water meter is a hexagonal shape on a cylindrical shape, which unique shape facilitates handling during installation of water meters. C

(b) The plaintiffs' water meter consists of two parts — upper body and lower body with threaded end connections. Ningbo water meter on the other hand, has a third piece of ring (with thread lines) to attach the upper and lower bodies together. As a pure matter of design and nothing to do with the functioning of the water meter, Ningbo added edges to the ring for visual impact, in the quest for a unique shape for Ningbo water meters despite adding to costs. D

(c) The plaintiff's water meter is round, but Ningbo water meter is square. E

(d) The dimensions of the two water meters and their components, including the measuring chamber, the piston, the counter register, cover, strainer and valves, are also different.

(e) For the plaintiffs' water meter, 60ml of water flow will make the piston rotate once, whereas for Ningbo water meter, only 40ml of water flow will make the piston rotate once. According to DW2, in evaluating the similarities between two water meters, this gear transmission ratio, ie the number of times the piston rotates when 1liter of water flow through it, is the most important aspect to be considered. F G

(f) For the Plaintiffs' water meters adopt the worm gear as the mechanism to reduce speed, while Ningbo water meter adopts the transmission gear mechanism.

(g) The orientation of the gear is also different. H

[50] I have no reason to reject DW2's evidence on these significant differences. In my view, there is merit in the argument of learned counsel for the defendants that there is no sufficient objective similarity between the two water meters because of the above-mentioned differences and bearing in mind what I have said a moment ago that the volumetric water meter with rotary piston stemmed from their common concept or idea. I

[51] This brings me to the issue of causal connection. It is important to bear in mind that it is not the plaintiffs' case that the defendants have access to the plaintiffs' drawings. To be more precise, it is the case of the plaintiffs that Ningbo has copied the plaintiffs' water meter by way of reverse engineering. Reverse engineering in the context of the present case means that Ningbo measured the component parts in detail and reproduced them in drawings and the three-dimensional reproduction of the drawings, namely the Ningbo water meter.

[52] Nonetheless, to my mind the plea of reverse engineering of the plaintiffs' water mater is not free from difficulties. There is merit in the argument of learned counsel for the defendants to the effect that there is no way that Ningbo could copy the drawings by reverse engineering the plaintiffs' water meter (P52), as part of the drawings do not exactly depict plaintiffs' water meter in the first place.

[53] In this very context, learned counsel drew my attention in particular, to the cross-examination of PW1 regarding the drawing of the counter case of the water meter, where PW 1 agreed that the counter case in the first drawing does is not the drawing for the counter case in P52.

[54] Similarly, PW1 confirmed that the drawings No 2 (counter register), drawing Nos 3 and 4 (top plate) are not the drawings for the plaintiffs' water meter in P52.

[55] Here, I notice that learned counsel for the plaintiffs put great emphasis that Ningbo's own design calculations ('D65') state 'refer to overseas sample and compare with our mass testing, preliminary selection and the capacity of the dimensions are as follows'. He argued that this conclusively demonstrates that Ningbo copied the plaintiffs' water meter.

[56] After what I have already said, the fact that Ningbo stated in the design calculations ('D65') that it has referred to other oversea samples in its testing assumes little significance, as referring to samples is not equivalent to copying the samples. Above all, there is no evidence that the samples referred to by Ningbo include the plaintiffs' water meter. It does not follow that, because Ningbo has referred to other overseas samples, the samples must include plaintiffs' water meter. I shall have to consider at a later stage the significance of D65.

[57] The plaintiffs have also attempted to show copying by pointing to two aspects of the plaintiffs' water meter, an offset register window and gearbox attachment pegs locations, which were less than ideal design, brought about by a later requirement to increase the digits in the register from seven to eight,

which according to PW1 were also found in Ningbo water meters. However, I note this part of the plaintiffs' case, was not put in cross-examination to DW2. This being the case, the significance of these aspects is somewhat diminished.

[58] More important than all these, it is my view that the defendants have proved on the balance of probability that Ningbo water meter was independently developed.

[59] It is not disputed that Ningbo is a well-established water meter manufacturer in its own right of 80 years standing. The fact that Ningbo water meter was independently developed by Ningbo is established from the evidence of DW2. DW2 produced documentary evidence in the form of design calculations for Ningbo water meter, marked as D65 and the relevant drawings, marked as D66. In this regard, DW2 has explained and described in detail the basic functioning principle of the volumetric rotary piston water meters. He then explained that the structure of the water meter could be divided into three main parts. The first is the meter body for connecting the meter and the conduit, it shall endure the pressure and shall be leak-proof. The second is the measuring chambers and piston, which transmits the water flow movements to the mechanical movements in the register. The third is the transmission gear and counter, the mechanism to reduce the rotating rate of the piston and thereafter transmitting same to the counter, the water flow volume is being recorded in cubic meter (m3) in the register. These parts, according to him, are dictated by the volumetric rotary piston measurement principle, functional requirements as well as the international standards applicable to the water meters. DW2 has also explained that Ningbo has fulfilled the requirements of the specifications in ISP 4064 in their design of Ningbo water meter. According to DW2 the ISO standard prescribed that for this particular type of water meter, at maximum flow rate (Q^{max} — highest flow rate at which the water meter is required to give indications within the maximum permissible error tolerance), the pressure loss caused by the presence of a water meter in the pipeline at a given flow rate shall equal or be less than 1 bar, ie ΔP (pressure loss)</= 1bar. He added that generally speaking pressure loss is lower for bigger meters (and therefore it could last longer) and vice versa. DW2 further stated that this shall be taken into account in the technical design of the water meter and at the same time, the design shall seek to minimise the size of the water meter to cater for costs saving. He added that, in the design of the Ningbo water meters, not only they have to comply with the dimensions and other requirements prescribed by the International standard ISO 40, they also try to achieve the best Q^{min} (lowest flow rate at which the meter can give indications within the maximum permissible error tolerance) possible and at the same time, take into account the economy aspect of it.

[60] It is not disputed that Ningbo has been granted appearance design patent by way of certificate No 272935 in respect of Ningbo water meters.

[61] I also note here that the plaintiffs did not dispute the fact that the drawings in D66 and the design calculations in D65 are the drawings and design calculations of the Ningbo water meter.

[62] In so far as the date of drawings for Ningbo water meters are concerned, DW2 explained and clarified that in 2002, Ningbo has already started selling Ningbo water meters. According to DW2 research and development was completed in 2005 and hence the drawings in D66. However, DW2 clarified that before 2005, Ningbo has drawings for Ningbo water meter, as there were amendments to the designs.

[63] It is my findings therefore that DW2 is a credible witness and that he is telling the truth when he testified to the effect that the drawings for the Ningbo water meter were prepared by Ningbo. In the end, I accept the evidence of DW2 to the effect that Ningbo water meter was designed and produced by Ningbo. It is my findings that the Ningbo water meter was the result of Ningbo own development efforts and was not copying the plaintiffs' water meter. Hence, for this very reason there can be no infringement of the plaintiffs' copyright by Ningbo (see *Goodyear Tire & Rubber Company & Anor v Silverstone Tire & Rubber Co Sdn Bhd* [1994] 1 MLJ 348; [1994] 1 CLJ 509.)

[64] I should perhaps note here that Hamid Sultan JC (as he then was) in the case of *Elster Metering Ltd & Anor v Premier Amalgamated Sdn Bhd* [2010] 2 CLJ 149 also concluded that Ningbo Water meter had been independently developed by Ningbo.

[65] While preparing the draft of this judgment, learned counsel for the plaintiff has brought to my attention the judgment of Abang Iskandar J in the case of *Elster Metering Limited & George Kent (M) Bhd v Damini Corp Sdn Bhd & Delta Perdana Sdn Bhd* (Suit No D5 (IP)-22–1279 of 2006). I should point out that case is distinguishable on its facts. There, inter alia, the learned judge held that the defendant's PD97 TRP water meter (P12) was not a product independently created by the Lianli Company in China. The learned judge made a finding of fact to the effect that the authenticity of the drawings purported to have been originally drawn by Lianli Company in China had become suspect. Besides, the learned judge held that in the circumstances of that case in all probabilities the water meter PD97 TRP water meter (P12) had been produced by way of reverse engineering. This part of the judgment of Abang Iskandar J, therefore, does not help the plaintiffs in the case at hand.

[66] As a result, to sum it up, based on all these reasons, it is my findings that the plaintiffs failed to discharge their burden of proving that there is a case of copyright infringement in this case.

[67] For these very reasons, I see no alternative but to dismiss the whole of the plaintiffs' claim with costs.

Plaintiffs' claim dismissed with costs.

Reported by Ashgar Ali Ali Mohamed